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# CONDITION AND VALUATION SURVEY REPORT

This is to certify that the undersigned surveyor did on December 14, 2011 at the request of Dave Czako for the Naval Surface Warfare Center Dahlgren Division, attend the vessel ***SEA LION*** to perform a condition and valuation survey. The vessel was seen while hauled at St. Mary's Yachting Center, located in Drayden, Maryland.

This report is for the exclusive use of the named requester, or any individual or organizations acting on his behalf. It may not be transferred to any other party. The estimated value is based on a general market research, with consideration given to findings. It should be used as a guideline for the future use of the vessel only.

This vessel has been reconfigured from a motor yacht to that of a working platform to accommodate the various missions of its owner. As a consequence, most of the interior has been altered by the installation of various aluminum racks designed to secure electronic equipment. The forward cabin and head has been converted into a workshop.

## Description of Vessel

| | |
|---|---|
| Name | Sea Lion |
| Description | Fiberglass fly bridge convertible |
| Builder | Ocean Yachts. |
| Place Built | Egg Harbor, New Jersey |
| Year | 1983 |
| Builders Hull Number | XYU55030M83 |
| Official Number | US Navy 60NS832 |
| Length Overall | 58 Feet 8 Inches* |
| Beam | 16 Feet 4 Inches |
| Draft | 4 Feet 4 Inches |
| Displacement | 58,000 lbs |
| Estimated Market Value | $ 35,000 |
| Estimated Replacement Value | $ 1,600,000 |
| Suitability for Intended Service | Poor |

*See comments under Hull Construction

# Scope of Inspection

The hull was sighted, topsides and bottom for fairness and the sheer was sighted for true as best possible. The hull was then examined, topsides and bottom. The interior was examined from stem to stern where accessible. Lockers were emptied, where necessary, but there was no destructive disassembly. Cockpit, decks and superstructure were examined where accessible without disassembly. The engines were examined at rest, and no systematic testing was performed. Electric systems were visually examined where accessible, but no testing was done.

## *Hull, Deck and Interior Construction*

### HULL CONSTRUCTION

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| | The hull is comprised of a matrix of woven roving, directional fiberglass cloth and resin, which is reinforced by a series of fiberglass reinforced plastic frames and longitudinals |
| Bottom | Fiberglass reinforced plastic |
| Stringers | 6” x 8” fiberglass reinforced plastic |
| Frames | 2” x 6” fiberglass reinforced plastic |
| Bulkheads | ¾” plywood |
| Bulkhead Bonds | Fiberglass tabbing |
| Hull to Deck Bond | The Hull/Deck joint is outward lapped flange, in which the joint is sealed and mechanically fastened using stainless steel screws on the exterior, and fiberglass reinforced plastic slurry and tape on the interior. It is then capped with a heavy-duty vinyl rub rail. |
| Comments | The overall length of this vessel extends beyond the designed length of 55’ 8”, published by the manufacturer. From all appearances, the aft deck was extended by several feet. The hull was closely examined for any deficiencies that might affect the seaworthiness of the vessel. It was then observed for blistering and percussion sounded for delamination. Overall the exterior was sound, with several noteworthy exceptions; A substantial crack was observed on both sides of the hull approximately five feet forward of the transom, presumably in the area in which the hull was extended. It is more prominent on the port side than the starboard. Nonetheless, this cracking may be the result of inadequate construction practices, combined with flexing of the hull while at sea. Efforts should be taken to investigate the cause and affect a repair equivalent to accepted marine practices. In addition, an area of delamination was observed on the hull sides, just above the chine, forward of the previously mentioned cracks. These too, may a consequence of hull extension, and should be repaired. |


Noted Crack on Port Hull Side

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| | Additional cracking was observed at the junction of the transom and hull sides. The interior of the hull was observed, where accessible, for structural deficiencies. The bulkheads were inspected for decay or detached bonding, and the stringers and frames examined for delamination with a phenolic hammer. While much of the forward interior was inaccessible, all observed stringers were sound, where the bulkheads and bulkhead bonds, appeared securely constructed and structurally sound. |
| General Condition | Fair to Good |

**DECKS**

| | |
|---|---|
| Decking | Fiberglass reinforced plastic |
| Core Material | Plywood and end grain balsa |
| Stanchions | Exterior Perimeter - 1 5/6" tubular aluminum with a top rail situated 30" above the deck forward, tapering to 21" adjacent to the house.<br>Interior Perimeter - 1" tubular stainless steel, with a top rail situated 39" above the deck |
| Pulpits | 5" x 18" teak, with a through bolted stainless steel rail |
| Bulwarks/Toe Rails | 4" x 1" teak toe rail |
| Comments | The decks and coach roof were examined for deficiencies, as were the stanchions and rails.<br>While most areas were sound, delamination was observed in both side decks adjacent to the cleats. Additionally, significant crazing and delamination was observed around the port aft hatch. The area should be repaired at the earliest opportunity in order to insure continued viability of theforedeck. The stanchions were secure and top rails were sound. |
| General Condition | Fair to Good |

**COCKPIT and HELM**

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| | The helm is located on the fly bridge, which is supported by a grid work of tubular aluminum, over which is positioned a tuna tower, with an additional steering and navigational station. The helm is enclosed by a fiberglass reinforced a plastic waist, and. protected from the weather by a fiberglass reinforced plastic top and clear acrylic on all sides. The steering station is located amidships, and is provided with two Sea Post helm seats, with additional seating provided forward, It is well fitted and provided with ample room for seating and navigation equipment. |

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| | The instrument panel is well laid out and throttles are all easily accessible.<br>The cockpit is accessed via transom door, from both side decks, and the salon. It is enclosed by fiberglass reinforced plastic bulwarks. |
| Bulwarks | 28”molded fiberglass reinforced plastic with teak decks |
| Sole | Aft – 3/8” aluminum bolted through the deck<br>Forward - 3/8” x 1 ¾” teak bedded in polysulfide, glued to molded fiberglass reinforced plastic. See comments |
| Self Bailing | Two 1 ½” x 3” drains are provided |
| Seacocks on Scuppers | No, scuppers are configured to discharge 8” above the static water line |
| Sole Hatches | Yes, access to steering gear and mid compartment bladder tank |
| Comments | The teak deck boards, with few exceptions, have come adrift from their fastenings, and exhibit varying degrees of buckling throughout. Most, if not all of the deck will have to be replaced. The deck hatches are all degraded to the extent that they must be replaced, and the gutters are all obstructed, allowing water to enter the vessel. Even while hauled, this may have serious consequences, given the fact that the bilge pumps are presently inoperative. Access to the engine compartment is provided via a hatch located on the port side of the aft house. |
| |  |
| General Condition | Poor |

**CABIN**

| | |
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| | The house is accessible via a sliding wooden door situated 20” above the deck. The cabin is comprised of an upper level main salon (configured as an electronics lab), and modest galley, where what was the forward staterooms and heads (Now additional working space) are accessed via companionway stairs. It is finished with vinyl, fabric, and oiled teak cabinets, with sealed safety glass windows on both sides. The forward portion of the cabin has been provided with a steel hatch for access to the foredeck, with sealed safety glass windows aft. The cabin interior is at best Spartan, and while structurally sound, exhibits varying degrees of abuse and degradation. |
| Sides | Both sides of the cabin have sealed safety glass windows in the upper section, with teak paneling below. The forward stateroom and head are provided with no port lights but are lighted using indirect florescent lights and are provided with hatches. |

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| Sole | ¾ ” plywood covered with carpeting or teak and holly |
| Overhead | Vinyl liner |
| Hatches | Bowmar aluminum using lexan lenses |
| Hatch Dogs | Plastic |
| Port Lights | None |
| Comments | All of the side windows and window tracks of the salon have been leaking for an extended period of time. They shod be removed and re-bedded. As a result much of the interior has decayed to the extent that most wooden components will have to be removed. Many of cupboards and cabinets are frozen closed. As previously noted, all forward spaces have been converted from staterooms to work spaces, where the liner has been either removed or is partially removed. The vessel is now provided with one operating head. |

| | |
|---|---|
| General Condition | Poor |

## *Mechanical Systems*

### PROPULSION ENGINE

| | |
|---|---|
| Make & Model | Twin Detroit Diesel 8V92 TI |
| Fuel | Diesel |
| Serial Number | Unknown |
| Horsepower | 650 @ 2300 RPM |
| Total Hours | Unknown |
| Engine Bed | Fiberglass reinforced plastic stringers |
| Engine Mounts | Steel vibration mounts bolted to the engine bed. |
| Cooling System | Heat exchanged |
| Raw Water Strainer | Exterior screens only |
| Alarms | Unknown |
| Reverse Gear | Allison, Model MH15 (R) (L), Ratio 1.50:1 |
| Comments | The engine beds were examined to insure the integrity had not been compromised. All stringers appeared structurally sound, and the engines securely mounted. As the engines were not observed while underway, it is difficult to determine whether the internal components are sound. However, both engines exhibit varying degrees of rust scale, oil streaking and an accumulation of carbon dust. Most of the belts, fuel lines and coolant hoses are brittle and approaching the end of their useful lives. It is reported that it is not possible to start or stop the engines from the helm. This is an unsafe condition which must be rectified. See additional comments under DC System. |
| General Condition | Fair to poor |

## FUEL SYSTEM

| | |
|---|---|
| Number of tanks | Three |
| Tank Material | Two 5052 aluminum and one bladder tank |
| ABYC Approved | Yes |
| Capacity | Reported total capacity of 500 each for the aluminum tanks, Unknown capacity for the bladder tank |
| Satisfactory Installation | Yes |
| Fills Labeled | Yes |
| Fill Location | Port and Starboard deck |
| Vent Locations | Through port and starboard hull, at air intakes |
| Fuel feed from Tanks | Aeroquip swaged hose |
| Feed Line Approved | See comments |
| Approved Valves at Feed Line | Yes, a fuel manifold is provided in the forward engine compartment |
| Filters | Mains –Twin Racor 1000 FG, with a secondaries on the engine; Generator – Racor 500 FG |
| Comments | The two aluminum tanks, configured outboard of the engines, are adequately supported, and placed well above the level of the bilge, and from the exterior appear in good condition. The condition of the bladder tank si unknown. While the filters appear sound, the distribution and return lines are in varying degrees of disrepair, are stiff, and exhibit rust bleed through, throughout |
| General Condition | Fair |

## EXHAUST SYSTEM

| | |
|---|---|
| Type | Wet |
| Materials | Cast iron, steel and bronze pipe, fiberglass reinforced plastic pipe and hose |
| Uncooled Section | Steel pipe |
| Lagging | Yes, see comments |
| Hose Approved | Yes |
| Double Clamped | Yes |
| Muffler | Fiberglass reinforced plastic |
| Siphon Break Loop | Risers at engines |
| Comments | The lagging to the exhaust side of the turbo chargers, and piping aft is oil soaked and degraded to the extent that it should replaced in order to avoid the possibility of fire. The exhaust hose associated with the generator muffler is cracked to the extent that it should be replaced. |
| General Condition | Fair to poor |

## STEERING SYSTEM

| | |
|---|---|
| Type | Hynautic Hydraulic push-pull ¾ ” ram attached to the port quadrant thus driving a 1 1/8” steel rudder bar, which, in turn, controls the starboard quadrant |
| Rudder Stock | 1 ¾ ” stainless steel |
| Stuffing Tube | Yes |
| Rudder | Unbalanced bronze, see comments |
| How Supported | Bronze collars which wear on plywood plate bolted to a 1 ¼” plywood shelf tabbed to the stringers |
| Comments | The exterior steering components of this vessel have experienced a traumatic impact, where both rudders are severely bent, as may be the rudder posts. While the associated components of the hull appear sound, efforts should be taken to withdraw both rudders for repair and the shafts examined for trueness. Additionally, many of the hydraulic terminations have deteriorated to the extent that they must be replaced, as have the associated aluminum junction blocks |



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| General Condition | Fair to poor |

**STERN GEAR**

| | |
|---|---|
| Shaft Material | Aquamet Stainless steel |
| Diameter | 2 ” |
| Stuffing Box | Yes |
| Double Clamped | Yes |
| Stern Bearing | Yes, see comments |
| Propeller(s) | Three blade bronze 28 D x 30 P, LH & RH |
| Comments | The running gear has experienced a traumatic impact resulting in the misalignment of both struts, the apparent deformation of both shafts, and a chipped starboard propeller blade. Like the structure surrounding the rudder post, the hull appears sound. That notwithstanding, given the severity of the damage observed, the propellers should be removed and tuned, the shafts withdrawn and examined for trueness, and possibly replaced, the struts removed and straightened or replaced, and the reverse gears removed, dissembled and examined for evidence of damage to the gears. |

Misalignment of Shaft at Starboard Strut

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|---|---|
| General Condition | Poor |

**VENTILATION**

| | |
|---|---|
| Engine room | One 12 volt blower |
| Adequate | Yes |
| Hotel | Six reverse cycle air conditioners and forward hatches. |

## *Electrical Systems*

**DC SYSTEM**

| | |
|---|---|
| Battery number and Voltage | Four NAPA 8D, 12 volt deep cycle configured in parallel as two banks for house supply and engine starting. One NAPA Group 24, dedicated as a generator starting battery. Accommodations for two additional batteries in the flybridge |
| Mounting Adequate | Yes for main batteries; not the generator battery |
| Circuit Protection | No |
| Wiring Type | 2 AWG multi strand copper from batteries, nothing less than 16 AWG noted elsewhere |
| Approved | See comments |
| Wire Splices | Yes, see comments |
| Master Switch | Yes |
| Instruments | Yes |

Battery Charger

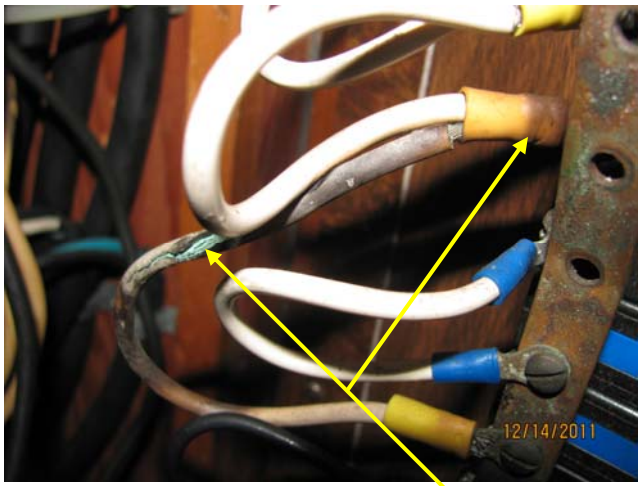
Charles, 5000 series, 30 amp charger, configured to charge house and propulsion batteries. Guest Charge Pro, 10 amp provided to charge generator battery

Approved

Yes

Comments

The DC circuitry is extremely confusing. Much of the wiring is not bundled, there are numerous unidentified wires and loose wire ends, and at least one termination, behind the main panel, which is browned and the associated sheathing melted. This disarray raises the possibility of fire, or the possibility of energized wires going to ground. Additionally, the batteries have been submerged, as have the engine starting solenoids, and many wires were noted as running through the bilge, several of which were very close to the starboard shaft. Efforts should be given to replacing the batteries and solenoids, eliminating any superfluous wiring, switching, and loose wire ends, re-routing the wires in the bilge, and to identifying and bundling the wires in a manner acceptable to common marine practice. The generator starting battery is crowded with an excessive number of battery terminations, which can result in a lack of continuity and an increase of resistance. Efforts should be taken to reduce the number of terminations through the installation of a buss bar. Given the number of deficiencies, it is the opinion of this office that the DC system should not be used until these recommendations are met.




Browned Termination and Melted Sheathing

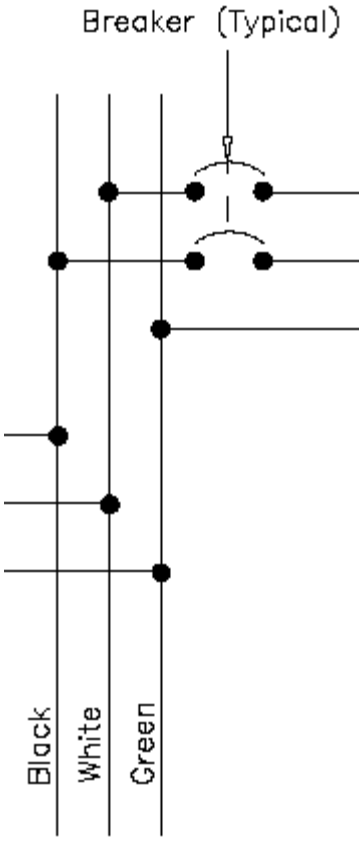


General Condition

Poor

**AC SYSTEM**

| | |
|---|---|
| Entry Type | 50 amp 120/220 volt |
| Circuit Breakers | Yes |
| Double Pole | See comments |
| Polarity Indicator | See comments |
| Switch Panel | Yes |
| Wiring Type | 600 volt Multi strand copper |
| Shore Power Cord | Not observed |
| System Grounded | To the shore power connection. |
| Generator | Northern Lights, 30.0 Kw |
| Serial Number | AD 164543 CRJ |
| Hours | 4099 showing |
| Comments | Like the DC system, the wiring to the AC system is not bundled and properly supported, and several terminations appear browned. In addition, from all appearances, the wiring and branch circuits have not been reconfigured to accommodate the electrical demands of the electronic laboratory in the salon. The system is also deficient by lacking a double pole breaker or reverse polarity indicating device, and by a lack of identification of the various branch circuits. The American Boat and Yacht Council (ABYC) recommends, "*Reverse polarity indicating devices providing a continuous visible or audible signal shall be installed in 120 V AC shore power systems and must respond to the reversal of the ungrounded (black) and the grounded (white) conductors the polarity of the system must be maintained for the proper operation of the electrical devices in the system.*"<br>"*For boats wired with 120 volt, single-phase systems, branch circuit breakers shall simultaneously open both current-carrying conductors. Fuses shall not be used.*<br>(See DIAGRAM)<br>***EXCEPTION: Branch circuit breakers may open only the ungrounded current carrying conductor if the AC system on the boat is equipped with a polarity indicator, or transformer.***<br>Consequently, efforts should be made to either replace all breakers with double pole breakers or to providing a Reversed Polarity indicator.<br>ABYC makes the following recommendation regarding outlets, "…if installed in a head, galley, machinery space, or on a weather deck, the receptacle shall be protected by a Type A (nominal 5 milliamperes) Ground Fault Circuit Interrupter (GFCI). GFCI outlets should be installed where appropriate. |



With regard to galvanic isolators, ABYC makes the following recommendations, "*Boats with metal in contact with water are subject to galvanic corrosion when connected to shore power as a result of connection to the common AC grounding conductor. This connection will affect the vessel's cathodic protection system. A galvanic isolator may be used to reduce these effects*." Consideration should be given to the installation of a galvanic isolator, ***if*** this vessel is to remain in a marina for an extended period of time. With regard to the generator output, It is unknown as to whether an audit is taken regarding the electrical demand of the electronics laboratory relative to the power available when underway. Efforts should be taken to reconfigure, bundle and identify all AC wiring to accommodate ABYC recommendations in order to insure that the AC system remains safe.

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| General Condition | Fair to Poor |

## *Plumbing*

**BILGE PUMPS**

| | |
|---|---|
| Electric / Automatic | (3) Rule 2000 – Lazarette<br>Rule 2000 – Aft engine compartment<br>Rule 2000 – Forward cabin bilge |
| Manual | None noted |
| Engine Driven | Yes, see comments |
| Bilge Alarms | None noted, see comments |
| Comments | Because there was no power available, the bilge pumps could not be proven as operational. While there is no standard regarding the number or capacity of bilge pumps required for any vessel, a general rule of thumb is 150 GPH/ foot of vessel length. Consequently a suggested number for a vessel of this length is three pumps with a total capacity of 8700 gallons per hour, which is exceeded by the number provided.<br>ABYC makes the following comments regarding bilge alarms, "*On boats with enclosed accommodation areas, consideration should be given to installing an alarm system to indicate that the bilge water is approaching the maximum bilge water level*." Because the operator is normally on the flybridge, far removed from possible calamity in the bilge, a bilge alarm will help to identify a situation prior to its becoming serious. |

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| | Careful consideration should be given to the installation of a bilge alarm to work in conjunction with a larger bilge pump. |
| General Condition | Fair to Good |

**THROUGH HULL FITTINGS**

| | |
|---|---|
| Number | Eleven |
| Locations | (2) main engine raw water intakes –Aft engine compartment<br>(3) AC intakes – Forward lazarette<br>Generator raw water intake – Under generator<br>Head intake – Adjacent to head<br>Waste discharge – Forward of port engine<br>Three additional head intake and discharge valves, not observed |
| Type of Valves | Bronze ball valves |
| Double Clamped | Yes |
| Bonded | Yes |
| Comments | The valves and through hull fittings identified above. may not be an accurate reflection of all of the below water through hull fittings. However, all of the observed valves, associated piping, were noted as serviceable. |
| General Condition | Good |

**BONDING – CATHODIC PROTECTION**

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|---|---|
| | The purpose of a bonding system is to equalize the electric potential of dissimilar underwater metals by tying them all together with wire or copper straps. The benefits of a bonding system are wide ranging. One is that it serves to dissipate stray current leaks. When 12 volts of current is focused on a small piece of metal, rapid destruction is often the result. Conversely, 12 volts spread over a much larger surfaces, causes less damage in proportion to the size of the water exposed surfaces of the metal. Bonding systems can reduce the corrosion potential of metals inside and on the bottom of the boat. |
| Bonding Wires | All metallic through hull appliances are provided with bonding wires, all of which were in serviceable condition, with eh exception of the connection to the starboard rudder post. |
| Cathodic Protection | It is unknown as to when the zincs were last changed. They should periodically monitored for premature wastage. |

## *Navigational and Electronic Equipment*

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|---|---|
| Compass | Ritchie/KVH Sail Fluxgate (reported as inoperative) |
| VHF Transceiver | Icom IC-M59/Icom IC –M127 |
| Fathometer | Yes |
| GPS | Garmin GPS map 215 |
| Radar | Garmin 380 |
| Bell | Yes |
| Horn | Yes |
| Running Lights | Yes |
| Approved | Yes |
| Rules of the Road | Yes |

## *Habitability*

### GALLEY

| | |
|---|---|
| Cookstove Type | Seaward Microwave |
| Fuel | Electric |
| System Approved | Yes |
| Ice Box | Toshiba refrigerator and ice box |
| General Condition | Good |

### HEADS

| | |
|---|---|
| Type and Number | Raritan electric flush |
| Holding Tank | Polypropylene, located under port statroom |
| Treatment Unit | Lectrasan, submerged and inoperative |
| Vent Loop | Yes |
| Comments | As a reminder, the holding tank discharge valve must be closed and locked in order to satisfy Federal and State Regulations while within the three-mile limit of the Territorial Seas |
| General Condition | Good |

### FRESH WATER SYSTEM

| | |
|---|---|
| Tanks | The vessel was originally configured with one tank with a reported capacity of 200 gallons. The tank, pump and water heater were not observed |

### BERTHING AND ACCOMODATIONS

| | |
|---|---|
| Number of Berths | Originally configured with three staterooms to accommodate six berths, all have been removed |

| | |
|---|---|
| Heating | Six Cruise Air, 16,000 btu Reverse Cycle |
| Air Conditioning | Six Cruise Air, 16,000 btu Reverse Cycle |
| Comments | It is reported that several of the ac units are inoperative. |

**INTERIOR JOINERWORK**

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|---|---|
| General Condition | Poor |

## *Fire and Safety Equipment*

**FIRE EQUIPMENT**

| | |
|---|---|
| Portable (No.) | Two observed |
| Type | Type I |
| Location | Flybridge<br>Starbaord cockpit locker<br>Aft salon |
| Fixed | Fireboy 150 CG |
| Location | Aft engine compartment |
| Type | Halon 1301 |
| Auto | Yes |
| Remote | Yes |
| Date of Inspection | Unknown, see comments |
| Comments | The number aboard does not satisfy the **minimum** required by Federal Regulations. At least three are required by these regulations. Moreover, the National Fire Protection Association (NFPA) recommends that four extinguishers are aboard a vessel of this length. Federal Regulations further stipulate, "*All portable extinguishers must be mounted in a readily accessible position*.". Careful consideration should be given to providing at least two additional extinguishers, one of which should be a BC size II, to be available in the event of a serious mishap. With regard to the fixed unit, Federal Regulations make the following observations, "*For the CME, Halon units to be counted toward the minimum requirements must be inspected and tagged by a recognized authority within 6 months of the examination. The pressure gauge is not an accurate indicator that Halon extinguishers are full. The units should be checked regularly*." The fixed unit should be inspected by an authorized fire extinguisher technician at the earliest convenience. |
| General Condition | Fair |

## SAFETY EQUIPMENT

PFDs

| | |
|---|---|
| Number of adult | None noted, see comments |
| Ring Buoys | Jim Buoy, see comments |
| Life Raft | See comments |
| First Aid Kit | None noted |
| Flares | None noted |
| Deck Obstructions | No |
| Deck Surfaces | Etched non-skid |
| Grab Rails | Yes |
| Ladders | Swim platform |
| Bilges Clean | No |
| Comments | Federal Regulations stipulate that, , "*All vessels used on coastal waters, the Great Lakes, territorial seas, and those waters connected directly to them, up to a point where a body of water is less than two miles wide, must be equipped with U.S.C.G. Approved visual distress signals. Vessels owned in the United States operating on the high seas must be equipped with U.S.C.G. Approved visual distress signals.*"<br>With regard to personal flotation devices, Federal Regulations stipulate, "*All recreational boats must carry one Type I, II, III or V PFD (wearable) for each person aboard… Wearable* ***PFDs must be readily accessible***, meaning you must be able to put them on in a reasonable amount of time in an emergency (vessel sinking, on fire, etc.). Distress signals and life jackets appropriate to the operation of the vessel must be provided.<br>The cover to the life raft is split, and there is no indication as to when the raft was last inspected. It should be inspected or removed from the vessel.<br>Finally, the polypropylene line associated with the life ring is degraded, and the plastic cover split. It should be replaced. |

## *Groundtackkle and Deck Gear*

| | |
|---|---|
| Number one, size and type | Fortress FX-23, see comments |
| Number one rode | Approximately 150'of 3/8" chain with no other identified rode |
| Number two, size and type | None noted |
| Stowage | Foredeck |
| Anchor Windless | Ideal and Powerwinch |
| Appropriate Breaker | No, see comments |
| Mooring Lines | Yes |
| Fenders and Bumpers | Yes |
| Comments | The anchor shank is bent, rendering the anchor as useless. While there are no Federal Regulations that mandate that an anchor is aboard, ABYC recommends, "*The operator is responsible for equipping the boat with ground tackle, mooring and docking lines appropriate to the boat's intended use and area of operation"*. Consequently, efforts should be made to provide a working anchor as well as an additional anchor and rode to be used under storm conditions or in the event that the existing ground tackle proves ineffective or becomes lost.<br>The anchor windless has not been provided with an identifiable breaker. ABYC recommends, "*Each ungrounded conductor of a branch circuit shall be provided with overcurrent protection at the point of connection to the main switchboard unless the main circuit breaker or fuse provides such protection.* " |
| General Condition | Poor |

## ***RECOMMENDATIONS***

These recommendations are based upon Federal and State Regulations as well as standards proposed by the American Boat and Yacht Council in its publication Standards and Recommended Practices for Small Craft and the National Fire Protection Association publication 302, Fire Protection Standard for Pleasure and Commercial Craft.

1. Investigate the cause and affect a repair of the cracks and delamination in hull sides adjacent to cockpit.
2. Repair cracking in foredeck adjacent to port aft hatch.
3. Repair or replace aft deck and aft deck hatches and gutter drains.
4. Re-bed all salon side windows.
5. Clean engines, replace belts hoses and fuel supply lines, Prove engines as fully operational from flybridge
6. Replace all fuel supply lines.
7. Inspect steel components of exhaust system, provide new lagging.
8. Remove and straighten or replace rudders and rudder posts: Replace all steering hydraulic lines and junction\ blocks.
9. Remove, inspect and straighten or replace all shafts and struts.
10. Remove both transmissions and inspect interior components for evidence of damage.
11. Rewire entire DC electrical system.
12. Reconfigure AC electrical system to accommodate ABYC recommendations, and insure adequate distribution of power to electronics laboratory.
13. Repair or replace Fluxgate compass.
14. Prove all air conditioners as fully operational or replace.
15. Provide a minimum of one additional fire extinguisher and provided for inspection of fixed extinguisher
16. Provide for the inspection of the life raft, or remove the raft from vessel.
17. Provide for breaker in anchor windless circuit
18. Insure that distress signals, life jackets, and life rings , as well as any additional safety appliances appropriate to operation of the vessel are installed, as required by Federal and State regulations.

Short of the cracks in the hull adjacent to the cockpit, the hull structure appears sound. However, it is apparent that maintenance to this vessel has suffered within the past several years. The most notable deficiencies are those in the electrical systems, the propulsion system, running and steering gear, decks and interior joinerwork. Many of these deficiencies evoke concerns regarding this vessel as a safe working platform, and severely detract from the overall value of the vessel. It is difficult to estimate the cost for repair of those deficiencies identified, let alone establish this vessel as a marketable commodity, given its reconfiguration, and extent of damage to the interior joinerwork, combined with the number of safety deficiencies noted. Given the level of work required to remedy the most noteworthy deficiencies identified, it is the opinion of this office that the cost involved will greatly exceed the value of the vessel. Disposal in its present condition can be made through auction, salvage or donation.

This survey is submitted without prejudice and has been prepared in good faith. It is a description of the condition of the vessel as seen on the date of the survey. The surveyor assumes no responsibility for any defects and shall be held harmless for any conditions arising. This survey does not guarantee either expressed or implied, the condition of the above surveyed vessel.

Donald McCann

Tranquil Waters Marine Services, Inc.
Donald M. McCann, Surveyor
SAMS – AMS, #555

Attachments: Photos


12/14/2011


US NAVY
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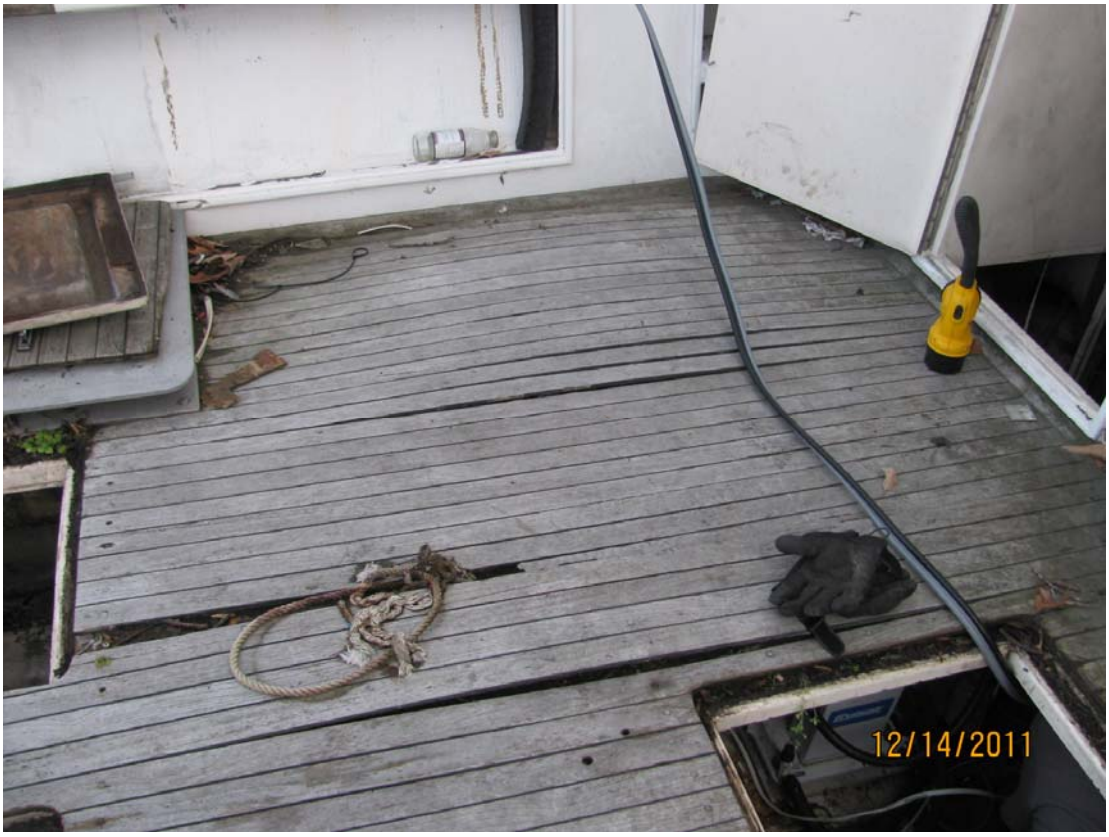
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